Crestron TPMC-15-CH-L

Isys i/O™ 15" Wall Mount Touchpanel Media Center

with Crestron Home® CAT5 AV Connectivity

Isys i/O ingeniously integrates touchpanel control with embedded PC functionality, delivering a unified solution for controlling AV and home automation, browsing the Internet, and streaming digital media. Incorporating modern styling in a versatile flush mount design, the TPMC-15-CH-L Touchpanel Media Center features a spectacular 15" XGA display offering an extra wide viewing angle with exceptional brightness and contrast for stunning control graphics, high-res images, embedded PC applications, and full-motion video.

Enhanced Touchpanel Control—In every sense, the TPMC-15-CH-L is a true Crestron touchpanel, offering vibrant 24-bit color depth with 8-bit alpha channel to produce incredible 3D graphics, high-res images, translucency, dynamic text and graphics, full-motion animations, multimode objects, and dramatic transition effects, all with astonishing speed. But more than a touchpanel, the TPMC-15-CH-L is also a dynamic resource for managing routine online tasks and enjoying streaming music and video, and a high-resolution video monitor with performance rivaling the best LCD flat-panel displays available.

Embedded PC—The power of Isys i/O is in its embedded PC engine, combining rock solid touchpanel performance with enhanced capabilities for surfing the Internet, streaming multimedia, and desktop videoconferencing. Running the Microsoft® Windows® XP Embedded operating system, Isys i/O delivers a reliable and secure platform for touchpanel control with integrated PC functionality.

With built-in Windows Media® Player, RealPlayer®, and Internet Explorer, plus viewers for Word, Excel, PowerPoint®, and Adobe® Acrobat®, the TPMC-15-CH-L provides everything needed for viewing Web pages, enjoying online music and movies, and downloading documents without necessitating a separate computer. NetMeeting® and Remote Desktop are also included to enable videoconferencing and provide remote access to other computers. Programmatic control erases the lines between control system and PC, allowing programmers to customize each application's behavior to create a truly powerful and user-friendly interface.

Both Cresnet and high-speed Ethernet are standard providing for seamless communications with Crestron control systems, computers, digital media servers, and other IP-based devices. Wi-Fi wireless networking and memory expansion are easily added through two PC card slots, and two USB ports enable the connection of an external mouse and keyboard (sold separately), as well as USB cameras, CD ROM drives, and memory devices.*

Dual HD Video Windows—**In addition to its internal PC and streaming video applications, the TPMC-15-CH-L can also simultaneously display two fully-scalable, full-motion video windows. Each window supports standard video and HDTV formats from external sources. Discrete video scalers with motion adaptive deinterlacing bring out the highest detail, minimizing visible scan lines and motion artifacts for an incredible picture. Advanced gamma correction and built-in time base correction ensure accurate color reproduction and a jitter-free image.

High-Quality Audio—An integrated microphone, biamplified speakers, stereo headphone output, and PC audio output are all built into the touchpanel to support full AV, intercom, desktop conferencing, and multimedia computer capabilities. Customized WAV files can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

CAT5 AV Distribution—All audio and video connections are facilitated using inexpensive CAT5 wire, enabling direct connection to Crestron's popular CAT5 balanced audio and video distribution switchers. Two video input ports are provided, each supporting composite, S-Video, and HDTV/component formats over wiring distances of up to 500 feet. A bidirectional audio port receives stereo program audio and intercom signals, and outputs audio from the internal microphone and PC for intercom and whole-house audio distribution. An interface module is included to enable direct connection to conventional video and audio devices.

Versatile Flush Mount Design—The TPMC-15-CH-L is designed for easy flush-mount installation in a wall, lectern or similar flat surface. A variety of mounting accessories is offered including optional back box and 19" rack mount kit. Five backlit pushbuttons are also provided, allowing for quick access to commonly used functions such as volume, home, and reset.

- *> 15" active matrix touchscreen display | 1024 x 768 resolution*
- *> 24-Bit Isys i/O graphics | Synapse image rendering algorithm*
- *> Windows XP Embedded operating system*
- *> Onboard PC applications for Web browsing, streaming media, videoconferencing, and remote computer control*
- *> High-performance dual-window video display***
- *> Built-in 10 watt biamplified speaker system and microphone*
- *> Crestron Home CAT5 AV connectivity*
- *> Secure high-speed Ethernet and Cresnet communications*
- *> Optional USB keyboard and optical mouse*
- *> Wall, lectern, and rack mounting options*
- *> Available in black or white*

AVAILABLE MODELS

TPMC-15-CH-LB Isys i/O 15" Wall Mount Touchpanel Media Center, Black

TPMC-15-CH-LW Isys i/O 15" Wall Mount Touchpanel Media Center, White

SPECIFICATIONS

Touchscreen Display

Display Type: TFT Active matrix color LCD
Size: 15 inch (38.1 cm) diagonal
Aspect Ratio: 4:3 XGA
Resolution: 1024 x 768 pixels
Brightness: 400 nits (cd/m²)
Contrast: 300:1
Color Depth: 24-bit, 16.7M colors

Crestron Isys i/O™ TPMC-15-CH-L 15" Wall Mount Touchpanel Media Center

Illumination: Backlit fluorescent
Viewing Angle: ±85° horizontal, ±85° vertical
Touchscreen: Resistive membrane

Processor

VIA Eden™ 667 MHz CPU

Memory

SDRAM: 512 MB
Flash: 512 MB internal compact flash card, expandable via rear panel PC Card slots

Operating System

Microsoft® Windows® XP Embedded

Graphic Engine

Isys i/O engine, VIA Unichrome™ CLE266 chipset, 24-bit non-palette graphics + 8-bit alpha channel translucency, 16.7 million colors, Synapse image rendering algorithm, multi-mode objects, dynamic graphics, full-motion (60 fps) animation, transition effects, color key video windowing

Embedded Software Applications*

Crestron MediaMarker™, Microsoft Internet Explorer w/Macromedia® Flash® plug-in, Windows Media® Player, RealPlayer®, Wordpad, Remote Desktop, NetMeeting®, Java™ Runtime, DirectX®, and Axis ActiveX® control, plus viewers for PowerPoint®, Excel, Word, and Adobe® Acrobat®

Ethernet

10BaseT/100BaseTX, auto-negotiating, full/half duplex TCP/IP, UDP/IP, CIP, DHCP, IEEE 802.3U compliant

Wireless

Wireless Ethernet capable using third-party 802.11 PC card*
(Wired connections required for power, audio, and video)

Video

Signal Types: Auto-detecting composite, S-Video, or component
Formats: SDTV 480i (NTSC) & 576i (PAL), EDTV 480p & 576p, HDTV 720p & 1080i
Color Depth: 24-bit, 16.7M colors
Features: Dual-window** each scalable to full-screen, time base correction, gamma correction, line doubling, motion adaptive deinterlacing, reverse 3:2/2:2 pulldown
Streaming/File Formats: ASF, ASX, AVI, MPEG, WMV, WMX, WVX (via Windows Media Player); MPEG2, MPEG4, MJPEG (via Axis ActiveX control)*

Audio

Hardware Features: Built-in microphone and biamplified speakers, stereo headphone output, internal volume control and audio mixer
Streaming/File Formats: MP3, WAV, WAX, WMA (via Windows Media Player)
Audio Feedback (WAV): 8 & 16 bit PCM, mono & stereo, 8 – 44 kHz sampling rates
Amplification: Biamplified, mono, 5 Watts for high-frequency, 5 Watts for low-frequency

Buttons

▼▲■ (4) Backlit "softkey" buttons, programmable
↻ (1) Backlit hard reset button, reboots the touchpanel system

Connectors

CH VIDEO IN 1 – 2: (2) 8-wire RJ45 female, CAT5 balanced video input ports
Signal Types: Auto-detecting component (YP_BP_R), S-Video (Y/C), or composite video
Formats: SDTV 480i (NTSC) & 576i (PAL), EDTV 480p & 576p, HDTV 720p & 1080i
Input Impedance: 100 ohms balanced
Connect to any Crestron CAT5 balanced video source(s) or TPMC-CH-IMC interface module (included) via CresCAT cable or TPS/TPMC-CBL-T "triamese" cable (sold separately);
Maximum Cable Length: 500 feet for component/HDTV, 750 feet for composite/S-Video

CH AUDIO I/O: (1) 8-wire RJ45 female, bidirectional CAT5 balanced audio port
Signal Types: Receives (1) balanced stereo audio signal, and transmits (1) balanced stereo audio signal from internal PC or microphone (dynamically selectable)
Maximum Input Level: 4 V_{RMS}
Maximum Output Level: 2 V_{RMS}
Input/Output Impedance: 600 ohms
Connects to any other Crestron CAT5 balanced audio port or TPMC-CH-IMC interface module (included) via CresCAT cable or TPS/TPMC-CBL-T "triamese" cable (sold separately)
Maximum Cable Length: 1000 feet

HEADPHONES: (1) 3.5 mm TRS mini phone jack
Output Power: 105 mW per channel
Minimum Impedance: 8 ohms

USB: (2) USB Type A female, USB 1.1 ports for mouse, keyboard, and storage devices*

RS-232: (1) 6-pin RJ11 female, computer console port
Bidirectional RS-232 up to 115.2k baud
Hardware and software handshaking support

PC CARD A – B: (2) Type II PCMCIA Card slots for memory expansion, project upload, and wireless NIC*

ETHERNET: (1) 8-wire RJ45 with 2 LED indicators; 10BaseT/100BaseTX Ethernet port
Green LED indicates network speed, Yellow LED indicates Ethernet activity

NET: (1) 4-pin 3.5mm detachable terminal block;
Cresnet Slave Port (data only; 24V terminal not used)
Connects to Cresnet control network, or TPMC-CH-IMC interface module (included), via CresCAT, Cresnet, or TPS/TPMC-CBL-T "triamese" cable (sold separately)

PWR: (1) 4-pin DC power jack, 12.5V DC power input (external power supply included)

PWR OUT: (1) 4-pin DC power jack
Connects to PWR jack using 9-inch 4-pin DC power patch cable (included) when locating power supply remotely; passes 12.5V DC power from PWR IN terminal blocks

PWR IN: (2) 2-pin detachable terminal blocks, paralleled
Used to extend power cabling up to 60 feet using 4 conductor, 14 AWG wire connected to a TPMC-L-IMC power interface module (included) at remote power supply location

G: (1) 6-32 screw, chassis ground lug

Power Requirements

TPMC-15-CH-L: 8.4 Amps @ 12.5 Volts DC
External Power Supply (included): 2.2 Amps @ 100-250 Volts AC, 50/60 Hz
Cresnet Power Usage: 0 Watt @ 24 Volts DC

Environmental

Temperature: 50° to 113°F (10° to 45°C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Construction: Metal, flush mountable, 8U 19" rack-mountable (all mounting kits sold separately)
Front Bezel: Injection-molded plastic; black w/silver or white w/gray accent

Dimensions

Height: 13.59 in (34.52 cm)
Width: 14.17 in (35.99 cm)
Depth: 3.83 in (9.73 cm)

Weight

10.0 lbs (4.50 kg)

SPECIFICATIONS for TPMC-CH-IMC Interface Module (Included with TPMC-15-CH-L):

Connectors

NET: (1) 4-pin 3.5mm detachable terminal block, Cresnet slave port
Connects to Cresnet control network

VIDEO COMP/Y/Y, C/P_B, P_R: (3) BNC female
Provides (1) Composite, S-Video, or component video input
Input Impedance: 75 ohms
Input Level: 1 V_{P-P} nominal, 1.5 V_{P-P} maximum
Maximum DC Offset: 1.5 Volts

AUDIO IN: (1) 5-pin 3.5mm detachable terminal block
Balanced/unbalanced stereo line-level input
Input Impedance: 20k ohms balanced, 10k ohms unbalanced
Maximum Input Level: 4 V_{RMS} balanced, 2 V_{RMS} unbalanced

AUDIO OUT: (1) 5-pin 3.5mm detachable terminal block
Balanced stereo line-level output (unbuffered pass-thru from AUDIO TO PANEL)

AUDIO TO PANEL: (1) 8-pin RJ45 female, bidirectional CAT5 balanced stereo audio port
Output Impedance: 100 ohms balanced
Maximum Output Level: 2 V_{RMS}
Input Impedance: Infinite (unbuffered pass-thru to AUDIO OUT)

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VIDEO TO PANEL: (1) 8-pin RJ45 female, CAT5 balanced video output port
Output Impedance: 100 ohms balanced

NET TO PANEL: (1) 4-pin 3.5mm detachable terminal block, pass-thru from NET port

LED Indicators

PWR: (green) Indicates 24 Volts DC power supplied from Cresnet control network

Power Requirements

Cresnet Power Usage: 2 Watt (0.08 Amps @ 24 Volts DC)

Environmental

Temperature: 41° to 122°F (5° to 50°C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Black metal, surface mount box with (2) integral mounting flanges

Dimensions

Height: 1.29 in (3.28 cm)
Width: 7.30 in (18.54 cm)
Depth: 3.95 in (10.03 cm)

Weight

9.7 oz (0.28 kg)

SPECIFICATIONS for TPMC-L-IMC Interface Module (Included with TPMC-15-CH-L):

Connectors

PWR IN: (1) 4-pin DC power jack
Connects to 12.5 Volt DC output of PW-1280RU power supply (included)

PWR OUT: (2) 2-pin 7.62mm detachable terminal blocks, paralleled
Used to extend power cabling up to 60 feet using 4 conductor, 14 AWG wire

LED Indicators

PWR: (green) Indicates 12.5 Volts DC power supplied from PW-1280RU (included)

Environmental

Temperature: 41° to 122°F (5° to 50°C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

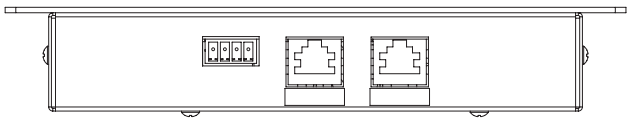
Black metal, surface mount box with (2) integral mounting flanges

Dimensions

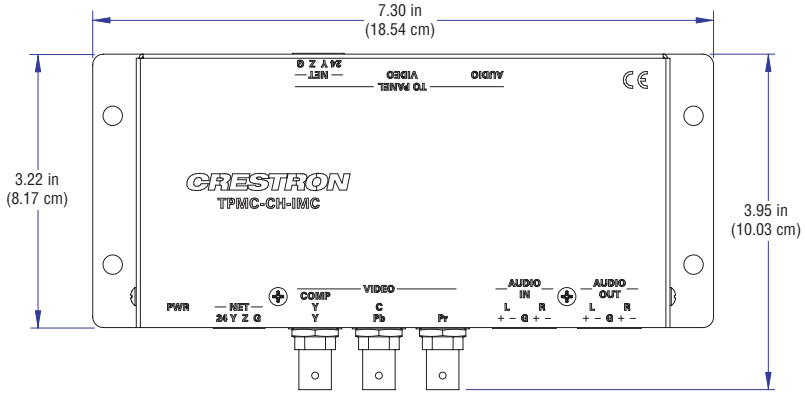
Height: 1.05 in (2.67 cm)
Width: 3.43 in (8.70 cm)
Depth: 2.23 in (5.66 cm)

** See manual or contact Crestron for a current list of compatible devices and embedded applications. To ensure reliable performance, new device drivers and applications are available only from Crestron through firmware updates.*

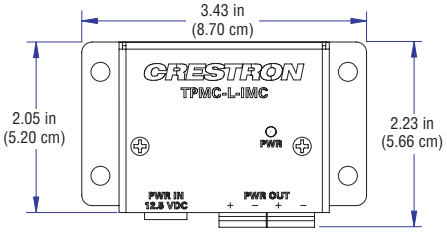
*** Additional CAT5 Balanced AV equipment is required to facilitate the input of more than one external video signal. Please visit the Crestron Website for more information about Crestron Home CAT5 Balanced AV.*



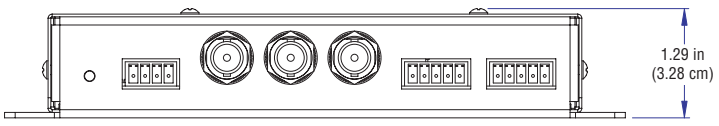
TPMC-CH-IMC Interface Module – Rear View



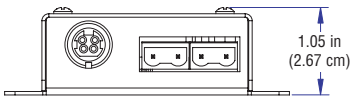
TPMC-CH-IMC Interface Module – Top View



TPMC-L-IMC Interface Module – Top View



TPMC-CH-IMC Interface Module – Front View



TPMC-L-IMC Interface Module – Front View

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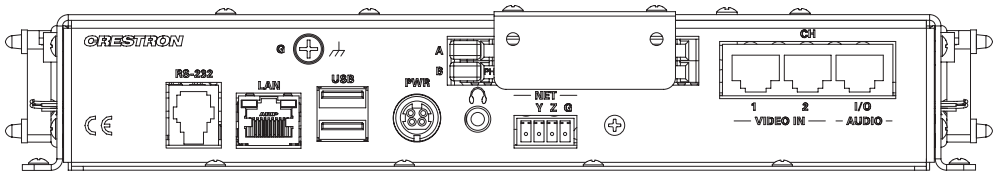
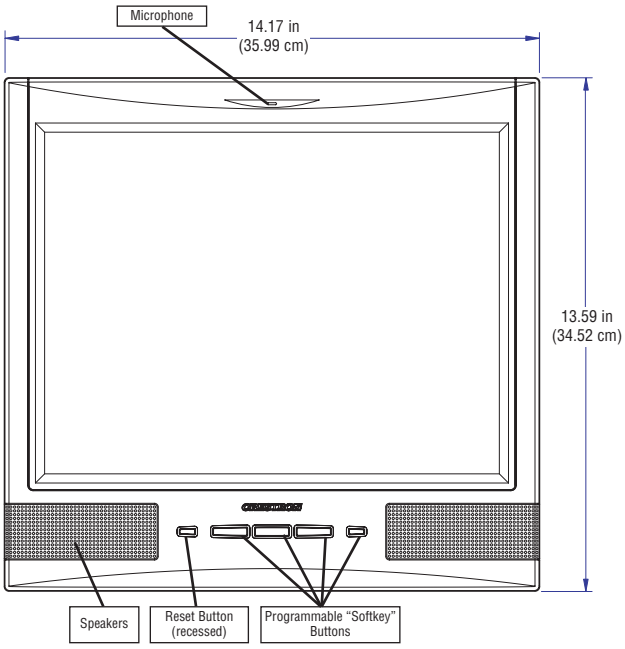
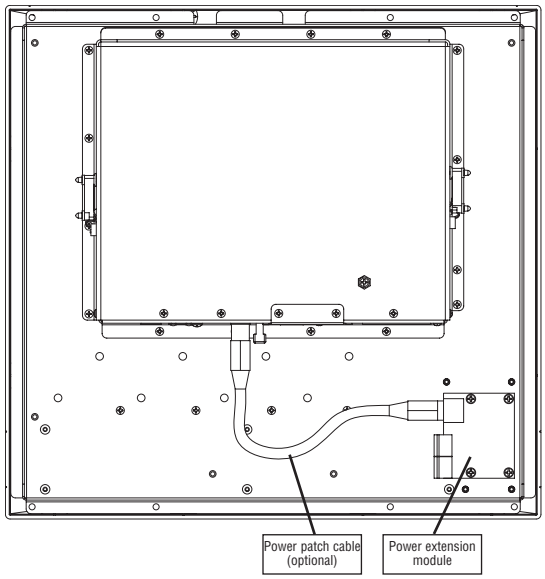


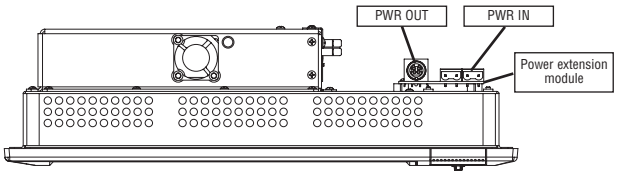
TPMC-15-CH-L Touchpanel – I/O panel



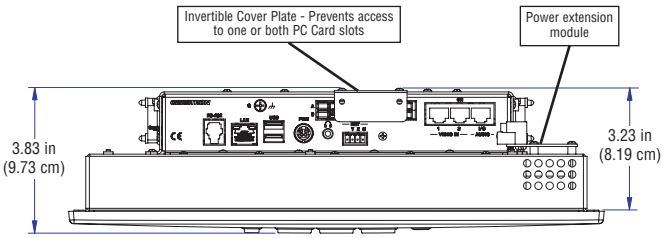
TPMC-15-CH-L Touchpanel – Front View



TPMC-15-CH-L Touchpanel – Rear View (power patch cable installed)



TPMC-15-CH-L Touchpanel – Right Side View



TPMC-15-CH-L Touchpanel – Bottom View

INCLUDED ACCESSORIES

TPMC-CH-IMC
CAT5 Balanced AV Interface Module

TPMC-L-IMC
Power Interface Module

PW-1280RU
Universal Power Supply

AVAILABLE ACCESSORIES

BB-15L
Pre-Construction Wall Mount Back Box

PMK-15L
Pre-Construction Wall Mount Kit

MMK-15L
Mud Ring

TMK-15L
Trim Ring

WMKM-15L
Post-Construction Wall Mount Kit with Mud Ring

WMKT-15L
Post-Construction Wall Mount Kit with Trim Ring

RMK-15L
Rack Mount Kit

TPMC-10-MSKB
USB Mouse and Keyboard

TPMC-CH-IMW
CAT5 Balanced AV Interface Wall Plate

TPS/TPMC-CBL-T
Triamese Interface Cables

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